Work Center ID Description Run Hours Code Qty Qty Number Star Draw Nbr Revision Nbr	Work Orde Wednesday, Oct	er ID 107795 ober 02, 2013 11:24	18 AM 30	7795	*107	7795*		•				Page 1
Reference: Run Start *NR Start *			B 3.		Accept	*N900	040	100)* s		1 1	S1* S2*
Approvals: Process Plan: Date: SPC (Y/N): Date: Stop * NR 2	Required Date:			*0*	*10*		ID:					
Work Center ID Description Run Hours Code Qty Qty Number State Draw Nbr		•	C.X		·				P		1/1	R1* R2*
D3001 Rev B 0.00						Tool ID	Tool#					Insp. Stamp
# 100	Draw Nbr	Revision N	br						*			
100 Waterjet Memo 0.00 FLOW CNC Waterjet 1-Cut as per Dwg D3001 Dwg Rev: Prog Rev: 2-Deburr if necessary 100 QC2- Inspect parts off machine FAI/FAIB 0.00	D3001	Rev B										
Waterjet Memo 1-Cut as per Dwg D3001 Dwg Rev: Prog Rev: 2-Deburr if necessary 10 QC2- Inspect parts off machine FAI/FAIB 100 QC2- Inspect parts off machine FAI/FAIB 100 QC3- Inspect parts off machine FAI/FAIB 100 QC3- Inspect parts off machine FAI/FAIB 100 QC3- Inspect parts off machine FAI/FAIB		FLOW	WATER JET		0.00				20	0		A
	Waterjet	et	1-Cut as per Dwg Rev: Prog Rev:	3	0.00				_10_			13110.0
11\) QC Memo 0.00	*110*	QC2- Ir	spect parts off m	achine FAI/FAIB					10	0		<u>Ae</u> 13.10.05

Quality Control

NCR: Ye	s / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: __

IVCN. TO	es / INU				WORK ORDER WORK	CONFO	RIVIAIVEL / OF	DAIL	QA Closed:	Dat	e:
Work Orde	r:				DISPOSITION			AGAINST DE	EPARTMENT	/PROCESS	
Part No	-				Rework Scrap	Scrap Machining Small Fab Prod. Eng. Coor. Qua					
NCR N	0				Use-as-is Work Order Update						
Root				Descri	ption of work order update	Initia	Ac	ction	Sign &		
Cause	Date	Step	Qty		or Non-conformance	Chief E	ng Desc	cription	Date	Verification	QC Inspector
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Landin	g Gear			_	General		•	_	_	-	
L	Bending			<u></u>	Bend	Grai	n	L	Ovalized	L	Pressure/Forced
	Centre N	Not Conce	ntric to (o/s	BOM/Route	Hard	ware	L	Over/Under	tolerance	Temperature/Cure
L	Cracks			_	Broken/Damaged	Inspe	ection Incomplete	_	Part Incorre	ct	Weld
L	Crushed	/Crimped			Burrs	Instr	uctions Incomplete/	'Unclear	Part Lost/M	issing	Wrong Stock Pulled
	Cuffs				Contamination	Maii	ntenance		Part Moved		
	Heat Tre	eat			Countersink	Misla	ibeled		Positioned V	Vrong _	
. [Inspecti	on Strip in	Tube		Cut Too Short	Misr	ead		Power Loss/	Surge	Other
	Ripples	in Bend			Drill Holes	Offse	et		-		
	Torque	Waves in I	Extrusior	1 [Drawing	Out	of Calibration				
	Turning	Sequence	!		Finish	Out	of Sequence				
	Wave/T	wist in Tul	be		Folio	Outs	ide Dimensions				

Work Ord Wednesday, Oct)7795 3 11:24:18 AM		*107					Page 2		
Item ID: Revision ID:	D3001-1 Doubler	# 7 0 % A P P		Accept	*N900	040	100) * s	Setup Sta	IVI	S1*
Item Name: Start Date: Required Date: Reference:	10/2/2013	Start Qty: 8.00 Req'd Qty: 8.00	*8* *8*		Cust Item Customer:	ID:				' "N	S2*
Approvals:	Process Pla	an:	Date:	Tooling: _ SPC (Y/N):		ate:	- 	F	Run Sta Sto		R1* R2*
Sequence ID/ Work Center II 120 *120 *120 C Quality Control	D	Operation Description QC8- Inspect parts - seco	nd check	Set Up/ Run Hours DAS 0.00 27 9-89	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* Small Fab Small Fab		Small Fab Memo 1-Scuff surfa 2-Deburr.	ices with 80grit sandpape	0.00 0.00 er per QSI 006				10_		5	J3/,0/
¹⁴⁰ *1⊿∩* ^{QC}		QC5- Inspect part comple	eteness to step on W/O	DAS 27 9-89 ら、 \ 〇~~	7			10			

Quality Control

NCR:	Yes	1	No

DQA: _____ Date: __

NCR: Y	'es	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UPI	DATE	QA Closed:	Dat	te:
Work Orde	, r					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
Part No. NCR No.						Scrap Machining Small Fab. Use-as-is Thermoforming Finishing			Crosstube Small Fab Finishing Composite	4	Water Jet d. Eng. Coor. e/Packaging Supplier	Quality Other	
Root					Descr	iption of work order update	T	Initial	Act	tion	Sign &	<u> </u>	
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Descr	ription	Date	Verification	n QC Inspector
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upplier							1						·
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napproved													
						F	AUL	T CATE	GORY				
Landi	ng G	ear				General		_			_	_	_
		Bending				Bend		Grain		ļ 	Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorred	ct	Weld
		Crushed/0	Crimped			Burrs		Instruct	ions Incomplete/l	Jnclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	t			Countersink		Mislabe	led		Positioned V	Vrong _	
		Inspection Strip in Tube Cut Too Short						Misread	l		Power Loss/	Surge	Other
Ripples in Bend Drill Holes							Offset		-				
		Torque W	aves in E	xtrusio	n [Drawing	Out of Calibration						
		Turning Se	equence	•		Finish		Out of S	equence				
Wave/Twist in Tube Folio						Г	Outside Dimensions						

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Work Orde Wednesday, Oct				*10	7795*			Page 3		
Item ID: Revision ID: Item Name:	D3001-1 Doubler		·	Accept	*N900	<u>0</u> 40100)*	Setup Start Stop	*NS1* *NS2*	
Start Date: Required Date: Reference:	10/2/2013 10/4/2013	Start Qty: 8.00 Req'd Qty: 8.00		8* 8*	Cust Item Customer:	ID:				
Approvals:	Process Pla	nn:	Date:	Tooling: SPC (Y/N):		ate:	I	Run Start Stop	*NR1* *NR2*	
Sequence ID/ Work Center II 150 *150* HandFinish Hand Finishing)	Operation Description Chemical Conversion Co	oat per QSI005 4.	Set Up/ Run Hours 0.00	Tool ID	Tool # Plan Code	Accept Qty	Qty	Reject Insp. Number Stamp	
*160 *160* QC Quality Control		QC3 Inspect Part Finish Memo	1	2	0.9		10_		· · · · · · · · · · · · · · · · · · ·	-
170 *170* Packaging		Identify as per dwg & Sto	ock Location: <u>S</u>	<u>-178</u> 0.00			/0		DAS 33/3 9-89	3-10-0°

Packaging

NCR:	Yes	1	No

DQA:

Date:

NCR:	•												
											QA Closed:	Dat	te:
Nork Orde	er:					DISPOSITION	ON			AGAINST DE	PARTMENT	/PROCESS	
							ework Scrap	1	Skid-tube Crosstube Water Jet Engineer Machining Small Fab Prod. Eng. Coor. Qual				
NCR No.					·	Work Order U		noforming Large Fab	Finishing Composite	Rec/Store/Packaging Other Supplier			
Root					Descr	ription of work order (update	Initial	Act	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Cl	nief Eng	Desci	ription	Date	Verification	n QC Inspector
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		Bending			L	Bend		Grain			Ovalized		Pressure/Forced
		Centre No	t Concer	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
		Cracks	-		L	Broken/Damaged		Inspecti	on Incomplete		Part Incorred	it	Weld
		Crushed/0	Crimped			Burrs		Instruct	ions Incomplete/l	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		Part Moved		
		Heat Trea	t			Countersink		Mislabe	led		Positioned V	Vrong	
		Inspection	n Strip in	Tube		Cut Too Short		Misread	i		Power Loss/	Surge	Other
	Ripples in Bend Drill Holes							Offset					
		Torque W	aves in E	xtrusio	1	Drawing		Out of (Calibration *				
		Turning Se	equence		Γ	Finish		Out of 9	Sequence				
Wave/Twist in Tube Folio							Outside Dimensions						

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Work Orde				*107				Page 4		
Revision ID:	D3001-1 Doubler			Accept	*N90004	10100)*	-	top *N	IS1* IS2*
	10/2/2013 10/4/2013	Start Qty: 8.00 Req'd Qty: 8.00	*8* *8*		Cust Item ID: Customer:					
Approvals:	Process Plan:QC:		Date:	Tooling: SPC (Y/N):	Date:		1		top *N	IR1* IR2*
Sequence ID/ Work Center ID 180 *1 2 0* QC Quality Control		Operation Description QC21- Final Inspection - Memo	Work Order Release	Set Up/ Run Hours 0.00	Tool ID To	ol# Plan Code	Accept Qty	Qty	Reject Number	

				DQA:	Date:
NCR:	Yes /	No No	WORK ORDER NON-CONFORMANCE / UPDATE	-	

											QA Closed:	Date	:
Work Orde	or.					DISPOSITION				AGAINST DI	EPARTMENT	/PROCESS	•
Part N	- No					Rework Scrap Use-as-is Work Order Update			Skid-tube Crosstube Water Jet Engineer Machining Small Fab Prod. Eng. Coor. Qual Thermoforming Finishing Rec/Store/Packaging Oth Large Fab Composite Supplier				
Root	T				Descri	ption of work order update	li	nitial	Ac	tion	Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling													
Operator	П												
Material													
Setup			£.										
Other							l						
Process													
Supplier													
Training							ļ						
Unapproved													
						F/	AUL	T CATE	GORY	- <u>-</u> -			
Landi	ng G	ear			_	General							_
		Bending				Bend	Ш	Grain			Ovalized	L	Pressure/Forced
	Цʻ	Centre No	t Concer	ntric to	o/s	BOM/Route	Ш	Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Щ	Cracks				Broken/Damaged	Ш	Inspect	on Incomplete	L	Part Incorred	ct	Weld
	Ц	Crushed/0	Crimped		<u> </u>	Burrs	Ш	Instruct	ions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs Contamination					Contamination	Ц	Mainte	nance		Part Moved		
	Heat Treat Countersink						Ш	Mislabe	eled	L	Positioned V		_
	Inspection Strip in Tube Cut Too Short					Ш	Misread	j		Power Loss/	Surge	Other	
	Ripples in Bend Drill Holes					${f m m m m m m m m m m m m m $	Offset						
	Torque Waves in Extrusion Drawing					Out of Calibration							
	Turning Sequence Finish					Ш	Out of 9	Sequence					
	Wave/Twist in Tube Folio					Folio	1 1	Outside	Dimensions				

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Wednesday, October 02, 2013 11:24:17 A

Work Order ID:

107795

Parent Item:

D3001-1

Parent Item Name:

Doubler

Start Date: 10/2/2013

Required Date: 10/4/2013

Start Qty: 8.00

Required Qty: 8.00

Comments:

IPP A01.03.22New IssueEC

IPP rev.B added scuffing NCR 061 EC

IPP Rev:C Now On Waterjet 07-12-13 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M5052H32S.040 5052-H32 .040 Sheet	1800-81-1	Purchased	No			100	sf	206.2600	0.7083	-6-	<u>Ae</u>	13.16	o · 05
				Location		Loc Oty	<u>Lo</u>	c Code					
				MAT022		206.260045							
				1224	106	14.160045							
				124	145	7							
				124:	573	39.1						<u> </u>	
				125	552	24			12	5552		. 8.C)
				m12	6593	122							

						•				DQA:	Date	:		
NCR: Y	es / No				WORK ORDER NO	N-COI	NFOR	MANCE / UPI	DATE	QA Closed:	Date			
				-	1					QA Closed.	Date			
Work Order:					DISPOSITION		AGAINST DI				DEPARTMENT/PROCESS			
Work Order.					Rework	Skid-tube Crosstube			7	Water Jet	Engineering			
Part No.					Scrap	Machining Small Fab			Pro	d. Eng. Coor.	Quality			
				Use-as-is		•		Finishing	Rec/Store/Packaging		Other			
NCR N	о				Work Order Update			Large Fab	Composite		Supplier			
Root	Description of work order update				i i	Initial Action Chief Eng Description			Sign &	_				
Cause	Date	Step	Qty		or Non-conformance			Descr	ription	Date	Verification	QC Inspector		
oc/Data														
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Landir	g Gear				General									
[Bending				Bend		Grain			Ovalized		Pressure/Forced		
	Centre N	lot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure		
	Cracks				Broken/Damaged	L	Inspecti	on Incomplete		Part Incorre	ct	Weld		
·	Crushed/Crimped		Burrs		Instructions Incomplete/Unclear		Jnclear	Part Lost/Missing		Wrong Stock Pulled				
	Cuffs			Contamination		Maintenance			Part Moved					
	Heat Tre			<u> </u>	Countersink		Mislabeled			Positioned Wrong				
		on Strip in	Tube	Ĺ	Cut Too Short		Misread			Power Loss/	Surge	Other		
ļ	Ripples i	n Bend		<u> </u>	Drill Holes	ļ	Offset							
	Torque \	Waves in I	Extrusio	n L	Drawing	<u> </u>	Out of Calibration							
	Turning Sequence			Finish	Out of Sequence									

Outside Dimensions

Wave/Twist in Tube

Folio

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DART AEROSPACE LTD	Work Order:	107795
Description: Doubler	Part Number:	D3001-1
Inspection Dwg: D3001 Rev: B		Page 1 of 1

	_	X First Arti		-	totype			
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Co	omments	
6.00	+/-0.030	6.00			V	JEM	701	
17.00	+/-0.030	17.00	_		T	JEM		
0.040	+/-0.010	1040			V			. ** . *
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			DAS 27	<u> </u>	<u> </u>	<u> </u>		
leasured by:	Ac	Audited by:	9-89		Prototype App	roval:	N/A	·
Date: /	3.10.05	Date:	13/0	77 [Date:	N/A	. 11.72.7
	Change					ovioad by	Anne	

Rev	Date	Change	F	Revised	by Ap	proved
Α	09.11.11	New Issue		KJ 75	7 4	7
					7	